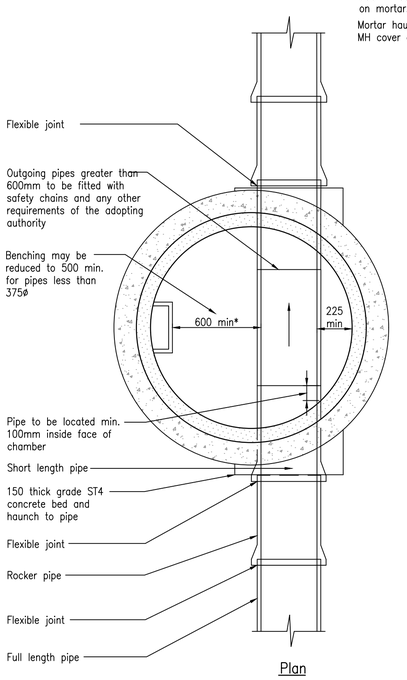
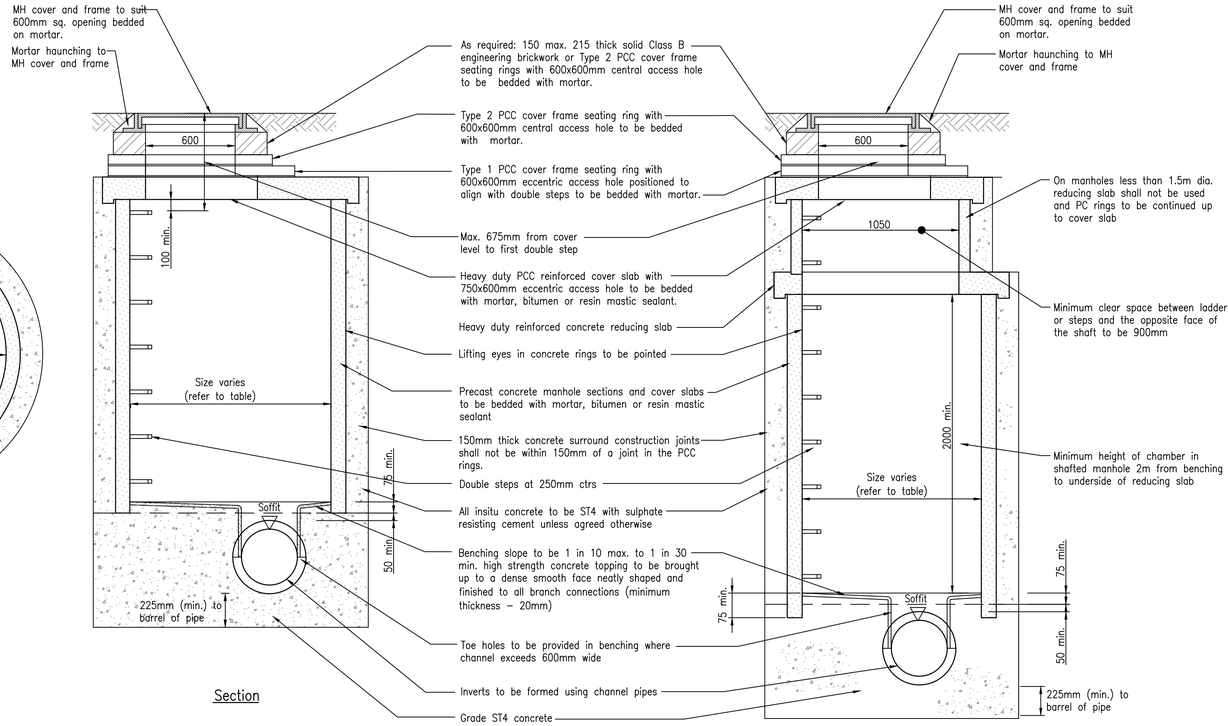


Plan



Section

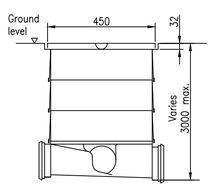
Typical Manhole Detail – Type B
Depth To Soffit Of Pipe 1450 To 3000

Type B manhole details may be applied to Type A manholes for chamber diameters less than 1500ø up to 6.0m depth to soffit.

Manhole Depth (To Soffit)	Diameter of largest pipe in manhole (mm)	Internal diameter of manhole (mm)	Minimum Clear opening size
Less than 1500	150	1000	750x675
	300	1200	750x675
	450	1350	750x675
	700	1500	750x675
	900	1800	750x675
	1000	2100	750x675
	Greater than 1000	Refer to schedules	750x675
Greater than 1500	100 – 450	1200	600x600
	Greater than 450	Larger of 1800 or (DN+775)	600x600
	Greater than 1000	Refer to schedules	600x600
Manhole shaft greater than 3000 to soffit of pipe	Steps	1050	600x600
	Ladders	1200	600x600

Table Applicable To Manhole Types A And B

(Chamber sizes are minimum required. See layout for variations, if any)

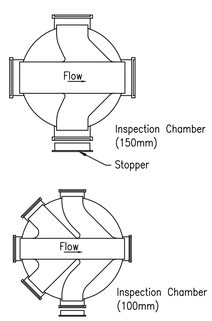


Notes:
1. Inspection chambers between 1200mm to 3000mm depth must have restricted opening of maximum 350mm diameter.

2. Cast iron cover and plastic frame are suitable for use where wheel loads do not exceed 1.5 tonnes.

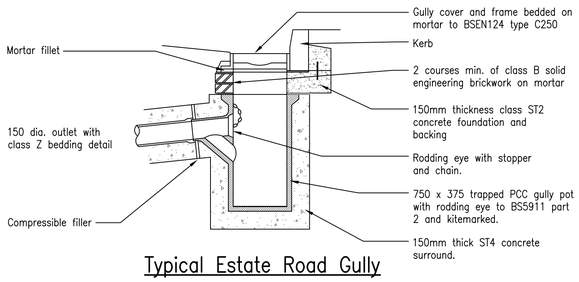
3. For heavy loading installations, chamber to be surrounded with 150mm thick concrete and cover replaced with appropriate loading classification cover.

4. Where side branches are not to be used stopper to be inserted to blank off connection.

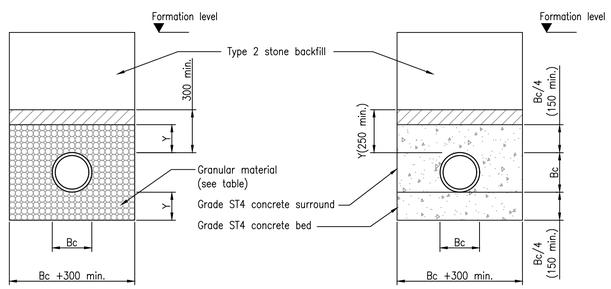


Poly–Propolene Inspection Chamber (PPIC)

Typical Manhole Detail – Type A
Depth To Soffit Of Pipe 3000 To 6000



Typical Estate Road Gully



Class S Detail

Class Z Detail

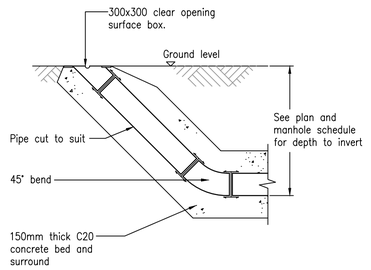
Nominal pipe dia (mm)	Single sized (mm)	Graded (mm)
150 200 to 300 375 to 525 GREATER THAN 525	10 or 14 10,14 or 20 14 or 20 14,20 or 40	14 to 5 14 to 5 or 20 to 5 14 to 5 or 20 to 5 14 to 5,20 to 5 or 40 to 5

Granular Bedding Material

(All aggregates to Table 4 of BS882:1983)

Notes
A) Bc = Outside diameter of pipe barrel.

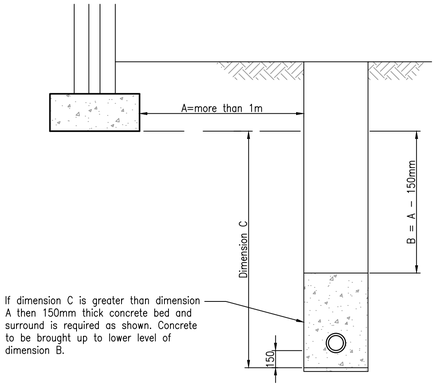
B) Y = For uniform soils:
Sleeve jointed pipes, min. 50mm or 1/6Bc, whichever is the greater.
Socketed pipe, min. 100mm or 1/6Bc, whichever is the greater under barrels and not less than 50mm under sockets. For rock or mixed soils containing rock bands, boulders, stones or other irregular hard spots: sleeve jointed pipes, min. 150mm or 1/4Bc, whichever is the greater. Socketed pipe, min. 200mm or 1/4Bc, whichever is the greater under barrels and not less than 150mm under sockets.



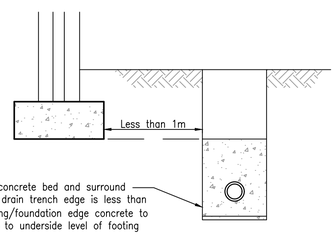
Typical Rodding Eye Detail

Nominal size	Effective length (mm)
150 TO 600	600
675 TO 675	1000
825 AND ABOVE	1250

Short And Rocker Pipe Lengths Table Applicable To All Manhole Types



Drain Trench Edge More Than 1m From Footing/Foundation Edge



Drain Trench Edge Less Than 1m From Footing/Foundation Edge

CONCRETE BED AND SURROUND TO BE DISCONTINUED AT EVERY PIPE JOINT (NOT TO EXCEED 5m)USING COMPRESSIBLE FILLER COMPRESSIBLE FILLER TO BE 18mm THICK FOR PIPEWORK UPTO 450mm DIAMETER FOR PIPES OVER 450mm FLEXCELL JOINTS TO BE 36mm THICK

Notes

1. Do not scale drawings. The Contractor is to check all dimensions on site before carrying out works.
2. This drawing is to be read in conjunction with the Architect's drawings which should be used to verify layout, setting out, finishes etc. any discrepancies are to be brought to the attention of the Architect prior to construction.
3. All tolerances are to be agreed with the Architect. The Contractor will be responsible for ensuring that sufficient tolerances provided are integrated throughout all elements of the work.
4. The Contractor is entirely responsible for maintaining the stability and integrity of all existing buildings and structures within and adjacent to the works and of all works from the date of possession of the site until practical completion of the works.
5. The Contractor shall design, install and maintain all necessary temporary works and shall advise the Architect before commencement of to works, of his proposals for temporary supports and sequence of construction.
6. The Contractor shall prevent overloading of any completed or partially completed elements. Details of the design loads may be obtained from the Architect.
7. All articles, materials and goods shall be new and of good quality, suitable for the required purpose and shall conform to their appropriate British Standard where such exists.
8. New timber shall be softwood grade C16 unless noted otherwise and shall be treated against rot, infection etc. including cut ends.
9. Brickwork and blockwork specification: see Architect's details.
10. Mortar levelling beds for beams to be 1:3 (cement:sand ratio).
11. All structural steelwork is to be mild steel thoroughly cleaned of all scale and rust then painted with two coats of red oxide prior to installation.
12. All metal fixings to be BAT or similar approved and fixed in accordance with manufacturer's instructions unless noted otherwise. All nails to be square twisted.
13. Concrete padstones and beam surrounds to be as follows:
    C20 OPC
    20mm max. agg. size
    Min. cement content 330kg/m
    Beams are to bear centrally on full width padstone.
14. Mortar shall be 1:3 mix with plasticiser.
15. Cavity shall be filled in max. 400mm lifts and concrete shall be min. strength C25. On site mix may be 1:3:2 (cement:sand:gravel ratio) with 10mm aggregate.
16. Concrete to be class C35 utilising sulphate resisting cement.
17. Cover to all reinforcement to be 40mm unless noted otherwise.
18. Minimum laps to reinforcement are to be 400mm for 10mm bars, 480mm for 12mm bars, 640mm for 16mm bars and 800mm for 20mm bars.
19. Foundation concrete shall be C35 strength, utilising a minimum cement content of 300 kg/m.
20. Cover to foundation reinforcement to be minimum 40mm.
21. Items noted 'to be verified on site' are to be exposed by the Contractor for inspection by the Engineer.
22. New foundations are to bear 150mm into firm clay (or other approved material) at a depth to match existing foundations.
23. See Architect's details for damp proofing specification and location.
24. Finish to top surface of concrete to be as per Architect's detail.
25. All bolts to be grade 8.8 unless stated otherwise.
26. Beneath raft foundations sub-strata to be well compacted before laying imported Type 1 stone to depth as indicated by Building Control (but min. 300mm), and to be compacted in layers.
27. All junctions between new masonry and existing to raft extensions to have a furfix joint full height with a polysulphide sealant.

For Approval

Mark	Date	Made by	Revision

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Job Title

Development at Syke Lane

Drawing Title

Proposed Drainage Details

Job No.	Drawing No.	Revision
20–542	D02	

Scales As shown @A1

Drawn by	Date	Checked
NM	09/04/21	RJP